



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution)**

**COIMBATORE-35.**



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.

## **DEPARTMENT OF AUTOMOBILE ENGINEERING**

### **COURSE NAME : 19AUE308 - SPECIAL VEHICLES**

**III YEAR /VI SEMESTER**

**Unit 3- Agricultural Vehicles**

**Topic : Working attachments of Tractors & Trailer and Tipping Mechanism**



# NEED FOR WORKING ATTACHMENTS



- Agriculture process involves different works in the field.
- With the aid of man power it is difficult to get job done.
- So, by the use of working attachments we can perform work easier.





# WORKING ATTACHMENTS



# DISC PLOUGH



- A disc harrow is a harrow whose cutting edges are a row of concave metal discs, which may be scalloped, set at an oblique angle.
- It is used to till the soil where crops are to be planted.
- It is also used to chop up unwanted weeds or crop remainders.





# ROTAVATOR



➤ Rotavator is a tractor-drawn implement which is mainly used for seed bed preparation within one or two passes and is suitable in removing & mixing residual of maize, wheat, sugarcane etc





# CULTIVATOR



- A cultivator is any of several types of farm implement used for secondary tillage.
- One sense of the name refers to frames with teeth that pierce the soil as they are dragged through it linearly.





# POST HOLE DIGGER



- Post hole digger is used to drill the holes in the field.
- It uses PTO for the operation.





# MULCHER



- Mulcher implement is primarily for paddy residue management.
- Best suited for turning cut paddy straw into natural manure.







# FERTILIZER BROADCASTER



- GreenSystem Fertilizer Broadcaster ensures the fertilizer spreads evenly in the field.
- It works through PTO.





# SUBSOILER



➤ Sub-soiler is best suitable for deep tillage to loosen and break up the hard pan in the soil.





# MANUFACTURING COMPANIES



- kubota
- John Deere
- Sakthiman

Kubota



JOHN DEERE



# Trailer and Tipping Mechanism





# Trailer and Tipping Mechanism



- A trailer is an unpowered vehicle towed by a powered vehicle. It is commonly used for the transport of goods and materials.
- The trailer is connected to the tractor by the aid of drawbar.
- The power from the engine is transferred to the hydraulic cylinder in the trailer for lifting the body to drop the materials at the required place.



# Types of Tipping Mechanism





## REFERENCE



- ❖ <https://www.deere.co.in/en/implements/>
- ❖ <https://www.youtube.com/watch?v=aUL-Fqb0sak>



**THANK YOU !!!**